
5. Festivals

Program Name: Festivals.java

Input File: festivals.dat

For the Celtic tribe of Galimatias, the leap year played a major role in determining their festivals. They knew from the Romans that a year is a leap year provided it is divisible by 4 and not by 100 and all years divisible by 400 are leap years. They had two important festivals. The Brimborion festival occurred every year that was divisible by 18 provided it was a leap year. The Narishkeit festival occurred every year that was divisible by 25 provided it was not a leap year.

In this problem, given a year you will have to state what properties that year has. The year could be a leap year and / or festival year. If the year is neither a leap year nor a festival year, then it is an ordinary year.

Input

The first line will contain an integer n , indicating the number of years to follow. It will be followed by n years, where n will be in the range 2 through 10 inclusive. Each year will be on a separate line. All the years will be in the range 500 to 1500 inclusive.

Output

For each input year, output the different properties for that year. Each property should be on a line by itself. The order of printing the properties (if present) is leap year, then Brimborion festival year or Narishkeit festival year or an ordinary year. There are four different properties for the years. A blank line should separate the output for each line of input.

Sample Input

```
4
1017
1400
1200
1080
```

Sample Output

```
1017 is an ordinary year.

1400 is a Narishkeit festival year.

1200 is a leap year.

1080 is a leap year.
1080 is a Brimborion festival year.
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